

Listing of Claims

1. (Previously Presented) A load cell apparatus comprising a cell block adapted to couple to a first structure, a mount adapted to couple to a second structure, the mount being made of a first material, the mount being formed to include a bore, a stud extending from the cell block, and a liner positioned to lie in the bore, the stud engaging the liner, and the liner being made of a second material that is more lubrous than the first material, a space being defined between the stud and the mount to permit relative movement between the stud and the mount.
2. (Original) The load cell apparatus of claim 1, wherein the mount includes an upwardly facing inner surface and the liner engages the upwardly facing inner surface.
3. (Original) The load cell apparatus of claim 1, wherein at least a portion of the liner is positioned to lie beneath the stud.
4. (Original) The load cell apparatus of claim 1, wherein the liner surrounds the stud.
5. (Original) The load cell apparatus of claim 1, wherein the liner is affixed to the mount.
6. (Original) The load cell apparatus of claim 5, wherein the liner is a flat pad.
7. (Original) The load cell apparatus of claim 1, wherein the liner is affixed to the stud.
8. (Original) The load cell apparatus of claim 7, wherein the liner is an O-ring.
9. (Original) The load cell apparatus of claim 7, wherein the liner is a sleeve.
10. (Original) The load cell apparatus of claim 7, wherein the liner coats the stud.
11. (Original) The load cell apparatus of claim 1, wherein the bore defines an axis, the stud moves axially during deflection of the cell block, and the stud maintains contact with the liner during axial movement.

12. (Previously Presented) A patient support comprising a frame including a base frame, an intermediate frame supported by the base frame, and a weigh frame adapted to support the weight of a patient, and a load cell apparatus positioned between the intermediate frame and the weigh frame to support the weigh frame on the intermediate frame, the load cell apparatus including a cell block supporting the weigh frame, a stud coupled to and extending from the cell block, a mount supported by the intermediate frame and including a bore, and a resilient liner positioned in the bore of the mount between the stud and the mount to transfer all force between the stud and the mount, the stud including a circular portion positioned adjacent to the resilient liner to permit the stud to move relative to the mount.

13. (Previously Presented) The patient support of claim 12, wherein the resilient liner is made of neoprene.

14. (Previously Presented) The patient support of claim 12, wherein the stud has a longitudinal axis and the circular portion includes a cross-section perpendicular to the longitudinal axis with a perimeter having a uniform radius of curvature.

15. (Previously Presented) The patient support of claim 14, wherein the circular portion is spherical.

16. (Previously Presented) The patient support of claim 12, wherein the resilient liner is positioned below the stud.

17. (Previously Presented) The patient support of claim 12, wherein the cell block includes an aperture and a portion of the stud is positioned in the aperture.

18. (Previously Presented) The patient support of claim 12, wherein a space is defined between the stud and the mount to provide clearance for the stud to move relative to the mount.

19. (Previously Presented) The patient support of claim 18, wherein the space is positioned between the resilient liner and the stud.

20. (Previously Presented) The patient support of claim 18, wherein the stud and the mount cooperate to define the space.

21. (Previously Presented) The patient support of claim 18, wherein the space is positioned between the resilient liner and the mount.

22. (Previously Presented) A load cell apparatus comprising a load cell adapted to couple to a first structure, the load cell including a load cell block and a circular portion, the circular portion having a central axis, a mount adapted to couple to a second structure, and

a resilient member positioned between the load cell and the mount to transmit all force between the load cell and the mount, the central axis being perpendicular to the transmitted force.

23. (Previously Presented) A load cell apparatus comprising a load cell adapted to couple to a first structure, a mount adapted to couple to a second structure, and a resilient member positioned between the load cell and the mount to transmit all force between the load cell and the mount, the resilient member being positioned below the load cell and above the mount so that downward force is transmitted from the load cell to the mount.

24. (Previously Presented) The load cell apparatus of claim 22, wherein the sole support between the load cell and the mount is provided by the resilient member.

25. (Previously Presented) The load cell apparatus of claim 22, wherein load cell includes a cell block and a stud coupled to and extending from the cell block, the stud has a circular portion, the resilient member is positioned between the circular portion of the stud and the mount.

26. (Previously Presented) A load cell apparatus comprising a load cell adapted to couple to a first structure, a mount adapted to couple to a second structure, and a liner positioned between the mount and the load cell, a space being provided between the load cell and mount to permit horizontal movement of the load cell relative to the mount.

27. (Previously Presented) The load cell apparatus of claim 26, wherein the space is positioned between the liner and the load cell.

28. (Previously Presented) A load cell apparatus comprising a load cell adapted to couple to a first structure, a mount adapted to couple to a second structure, and a liner positioned between the mount and the load cell, a space being provided between the load cell and mount to permit movement of the load cell relative to the mount, the space being positioned between the liner and the mount.

29. (Previously Presented) The load cell apparatus of claim 26, wherein the load cell includes a longitudinal axis and the space permits movement between the load cell and the mount along the longitudinal axis.

30. (Previously Presented) The load cell apparatus of claim 26, wherein liner is made of a resilient material.

31. (Previously Presented) The load cell apparatus of claim 26, wherein the load cell moves relative to the liner during relative movement between the load cell and the mount.

32. (Previously Presented) A load cell apparatus comprising a load cell adapted to couple to a first structure, a mount adapted to couple to a second structure, and a liner positioned between the mount and the load cell, a space being provided between the load cell and mount to permit movement of the load cell relative to the mount, the liner moving relative to the mount during relative movement between the load cell and the mount.

33. (Previously Presented) The load cell apparatus of claim 26, wherein the mount defines a bore and the space is positioned in the bore.

34. (Previously Presented) A load cell apparatus comprising a cell block adapted to couple to a first structure, a mount adapted to couple to a second structure, a stud extending horizontally from the cell block and having a circular portion, and

a resilient member positioned between the circular portion and the mount to transmit force between the circular portion and the mount.

35. (Previously Presented) The load cell apparatus of claim 34, wherein the stud includes a longitudinal axis and the circular portion has a cross-section perpendicular to the longitudinal axis with a perimeter having a uniform radius of curvature.

36. (Previously Presented) A load cell apparatus comprising a cell block adapted to couple to a first structure, a mount adapted to couple to a second structure, a stud extending from the cell block and having a circular portion, the circular portion being spherical, and

a resilient member positioned between the circular portion and the mount to transmit force between the circular portion and the mount.

37. (Previously Presented) The load cell apparatus of claim 36, wherein the stud includes another circular portion that is cylindrical and coupled to the first mentioned circular portion.

38. (Previously Presented) The load cell apparatus of claim 34, wherein the circular portion is in contact with the resilient member.

39. (Previously Presented) The load cell apparatus of claim 34, wherein the resilient member supports the stud.

40. (Previously Presented) A patient support comprising
a frame including a base frame, an intermediate frame supported by the base frame, and a weigh frame adapted to support the weight of a patient,
a mattress supported on the weigh frame, and
a load cell apparatus positioned between the intermediate frame and the weigh frame to support the weigh frame on the intermediate frame, the load cell apparatus including a load cell coupled to the weigh frame, a mount coupled to the intermediate frame, and a liner positioned between the load cell and mount to transfer force from the load cell to the mount.

41. (Previously Presented) The patient support of claim 40, wherein the liner is made of a resilient material.

42. (Previously Presented) The patient support of claim 40, wherein force is transferred from the load cell solely through the liner.

43. (Previously Presented) The patient support of claim 40, wherein the load cell includes a cell block and a stud coupled to the load cell, the liner is positioned between the stud and the mount.

44. (Previously Presented) A load cell apparatus comprising
a load cell adapted to couple to a first structure adapted to support a load to be measured, the load cell including a cell block and a stud coupled to the load cell, the stud including a circular portion,
a mount adapted to couple to a second structure, and
a liner positioned between the load cell and mount to transfer force from the load cell to the mount, the liner being positioned between the stud and the mount, and the liner being positioned under the circular portion.

45. (Previously Presented) A load cell apparatus comprising
a cell block adapted to couple to a first structure, the cell block having a longitudinal axis and first and second longitudinally spaced-apart ends,
a mount adapted to couple to a second structure,
a stud coupled to the first end of the cell block to extend along the longitudinal axis, and

a liner positioned between the stud and the mount, the liner being configured to permit sliding of the stud relative to the mount.

46. (Previously Presented) The load cell apparatus of claim 45, wherein the liner is made of a resilient material.

47. (Previously Presented) The load cell apparatus of claim 45, wherein the stud includes a circular portion.

48. (Previously Presented) The load cell apparatus of claim 47, wherein the circular portion is spherical.

49. (Previously Presented) The load cell apparatus of claim 47, wherein the circular portion is cylindrical.

50. (Previously Presented) The load cell apparatus of claim 47, wherein the circular portion is adjacent to the liner.

51. (Previously Presented) The load cell apparatus of claim 45, wherein the stud includes a longitudinal axis and the sliding occurs along the longitudinal axis.

52. (Previously Presented) The load cell apparatus of claim 23, wherein the load cell includes a cell block and a stud and the resilient member is positioned below the stud.

53. (Previously Presented) The load cell apparatus of claim 52, wherein the resilient member encases the stud.

54. (Previously Presented) The load cell apparatus of claim 53, wherein the stud is configured to slide relative to the resilient member.

55. (Previously Presented) The load cell apparatus of claim 52, wherein the stud includes a circular portion in contact with the resilient member.

56. (Previously Presented) The load cell apparatus of claim 52, wherein the stud has a width less than a width of the cell block.

57. (Previously Presented) The load cell apparatus of claim 52, wherein the stud contacts the resilient member.

58. (Previously Presented) The load cell apparatus of claim 57, wherein the stud includes a circular portion that slides on the resilient member.

59. (Previously Presented) The load cell apparatus of claim 32, wherein the load cell includes a cell block and a stud.

60. (Previously Presented) The load cell apparatus of claim 32, wherein the stud includes a circular portion in contact with the resilient member.

61. (Previously Presented) The load cell apparatus of claim 36, wherein the circular portion contacts the resilient member.

62. (Previously Presented) The load cell apparatus of claim 36, wherein the resilient member is positioned below the circular portion.

63. (Previously Presented) The load cell apparatus of claim 44, wherein the circular portion contacts the liner.

64. (Previously Presented) The load cell apparatus of claim 44, wherein the stud has a width that is less than a width of the cell block.

65. (Previously Presented) The load cell apparatus of claim 44, wherein the stud has a longitudinal axis that is horizontal.